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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,442	12/04/2001	Chun-Liang Lee	3313-0431P-SP	9178

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EXAMINER

LIN, KELVIN Y

ART UNIT	PAPER NUMBER
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2142

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/000,442	LEE, CHUN-LIANG	
	Examiner	Art Unit	
	Kelvin Lin	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14, 15 and 18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14, 15 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Response to Arguments

Application's argue with respect to claims 1-12, 14, 15, and 18 have been considered but are moot in view of the new ground(s) of rejection.

Response to Amended Claims

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-3, 5-11, 14, 15, and 18, are rejected under 35 U.S.C 103(a) as being unpatentable over Kumar et al., (US Patent No. 5970069) in view of Fukuhara et al., (US Patent No. 6728908).
2. Regarding claim 1, Kumar teaches features of transmission management device of a server implemented with a serial port RS232 and a bus, the transmission management device comprising:
 - a transmission system connected with an independent sub-system of the server for receiving and storing data and commands of the

server and for transmitting the data and the commands of the server to the independent sub-system (Kumar, Fig.2a, col.4, l.58-67, col. 1-6, col.8, l.17-39);

- an I/O system connected with the external system for transmitting the data and the commands of the external system to the transmission system and the control system, and for transmitting the data and the commands of the server to the external system (Kumar, col.5, l.19-36);

Although Kumar at the above mentioned prior art teaches

- a control system connected with the transmission system for receiving data and commands from an external system and interrupt signals of the server and for transmitting data, and the commands from the external system and the interrupt signals of the server to the independent sub-system through a bus but not I2C bus (Kumar, Fig.2a, col.4, l.32-43);

Fukuhara teaches a control system related to I2C bus controller operates as either transmitter or receiver incorporates into ASIC that connects to I2C bus and PCI bus and communicate among ASIC, I2C node and PCI bus (Fukuhara, col.2, l.23-67). The command message and interrupt signal between PCI component and I2C node thru I2C bus. (Fukuhara, col.7, l.16-47, col.45-60).

Furthermore, Fukuhara teaches an I2C bus-switching device on the I2C bus

for switching a connection of the control system to a different independent sub-system, thereby transmitting signals on the I2C bus to the different independent sub-system via the I2C bus (Fukuhara, col.8, l.29-44, in which the command messages switch between I2C and PCI corresponds to the switching connection of I2C controller to PCI, which is an independent sub system via I2C bus).

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Fukuhara for I2C control system related to the switch between PCI and I2C bus, motivation would be for a transmission management device implemented with a serial port RS232 and I2C bus incorporated easily as taught by Fukuhara.

3. Regarding claim 2, Kumar further discloses the transmission management device of claim 1, wherein the transmission system comprises:

- a connecting unit connected with the independent sub-system for connection with the independent sub-system and for transmitting the data and the commands of the server (Kumar, Fig.2a, col.4, l.53-57);
- a control unit connected with the connecting unit for temporarily storing and converting the data and the commands to asynchronous signals, for transmitting the asynchronous signals to the connecting unit, and for transmitting the interrupt signal to a CPU (Kumar, col.6, l.48-55, col.8, l.3-5, col.27, l.24); and
- a decoding unit connected with the control system for receiving the

data transmitted from the control system and for transmitting the information to the control unit after decoding (Kumar, col.8, l.45-57)

4. Regarding claim 3, Kumar further discloses the transmission management device of claim 2, wherein the connecting unit is a serial port RS232 connecting device (Kumar, col.1, l.20, col.4, l.44).
5. Regarding claim 5, Kumar further discloses the transmission management device of claim 1, wherein the control system comprises:
 - a network connector for connecting with the external system (Kumar, col.4, l. 53-57);
 - a system control unit connected with the network connector for transmitting the data and the commands of the external system and the interrupt signals to the transmission system and to the independent sub-system through the I2C bus (Kumar, Fig.15, col.6, l.56-67) ; and
 - a memory unit connected with the system control unit for storing the data and the commands of the external system (Kumar, col.7, l. 25-40).
6. Regarding claim 6, Kumar further discloses the transmission management device of claim 5, wherein the system control unit is a SOC (System On Chip) (Kumar, col.5, l.17-20).
7. Regarding claim 7, Kumar further discloses the transmission management device

of claim 5, wherein the memory unit is a SDRAM (Synchronous Dynamic Random Access Memory) (Kumar, col.6, l.61).

8. Regarding claim 8, Kumar further discloses the transmission management device of claim 5, wherein a PCI Bus is installed between the network connector and the system control unit (Kumar, col.7, l.1-6).
9. Regarding claim 9, Kumar further discloses the transmission management device of claim 5, wherein a memory bus is installed between the control unit and the memory unit (Kumar, col.7, l.6-10).
10. Regarding claim 10, Kumar further discloses the transmission management device of claim 5, wherein a data bus is installed between the transmission system and the control system (Kumar, col.6, l.2-9).
11. Regarding claim 11, Kumar further discloses the transmission management device of claim 1, wherein the I/O system includes:
 - a receiving unit connected with the external system (Kumar, Fig.5, col.9, l.9-24))
 - an I/O unit connected with the receiving unit for receiving the data and the commands of the external system and transmitting the data and the commands to the transmission system and the control system (Kumar, col.8, l.1-39); and
 - a ROM unit connected with the bus for storing the data and the commands of the server (Kumar, Fig.5, component 164).

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12. Regarding claim 14, Kumar further discloses the transmission management device of claim 2, wherein the interrupt signals are transmitted to the CPU by parallel connections (Kumar, col.7, l.8-10).
13. Regarding claim 15, Kumar further discloses the transmission management device of claim 2, wherein the interrupt signals are transmitted to the CPU by serial connections (Kumar, Fig.3, component 70, col.7, l.6-7).
14. Regarding claim 18, Kumar further discloses the transmission management device of claim 5, wherein the system control unit transmits the data and the commands of the external system to the transmission system through the decoding unit (Kumar, col. 5, l.38-41).
15. Claim 4 is rejected under 35 U.S.C 103(a) as being unpatentable over Kumar in view of Fukuhara and further in view of Liang et al., (US PG Pub. No. 2002/0196853).
16. Regarding claims 4, Kumar differs from the claimed invention in that it does not indicate the transmission management device of claim 2, wherein the control unit is an UART (Universal Asynchronous Receiver/Transmitter) with a FIFO (First-In-First-Out) function;

Linag teaches that in AV310 includes I2C serial bus connect to RS232 and two general purpose UART's which are asynchronous mode, full duplex, double buffered with 8 bytes FIFO UART(Linag, [0222], [0275], and [0355]).

Therefore, It would have been obvious to one of ordinary skill in the art at

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the time the invention was made to have combined the teachings of Linag for I2C connect RS232 with the control unit of UART with a FIFO function, motivation would be for a transmission management device implemented with a serial port RS232 and I2C bus to enhance the control unit as taught by Linag.

17. Claim 12 is rejected under 35 U.S.C 103(a) as being unpatentable over Kumar in view of Fukuhara and further in view of Tran et al., (US Patent No. 6145085).
18. Regarding claims 12, Kumar differs from the claimed invention in that it does not indicate the transmission management device of claim 11; wherein the I/O unit is a super I/O.

Tran teaches that in the system management bus control implement the I2C (inter-integrated circuit protocol), and the PCI/ISA (RS232) based machine provides a number of PCI and ISA slots, The ISA bus also couple the ISA bridge to a Super I/O.

Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teachings of Tran for I2C connect PCI/ISA and couple to Super I/O, motivation would be for a transmission management device implemented with a serial port RS232 and I2C bus to enhance the I/O unit as taught by Tran.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Lin whose telephone number is 571-272-3898. The examiner can normally be reached on Flexible 4/9/5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KYL
7/28/2005


**KAMINI SHAH
PRIMARY EXAMINER**

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